inhibition of the expressi n of the oncogene, or inhibition of the activity of the protein encoded by said oncogene.

15. (Amended) A cell according to claim 12, wherein the cell differentiates into sensory neurons under appropriate culture conditions.

16. (Amended) A cell according to claim 12, wherein the cell differentiates into nociceptive sensory neurons under appropriate culture conditions

53. (Amended) A method for determining whether conditionally-immortalized dorsal root ganglion progenitor cells are capable of differentiation into neurons, comprising the step of determining the presence or absence of β-III-tubulin positive cells in the proliferative growth condition, wherein said β-III-tubulin positive cells differentiate into neurons, and cells that are not β-III-tubulin positive do not differentiate, under cell culture conditions that allow conditionally-immortalized precursor cells to differentiate into neurons.

54. (Amended) A method for transplanting a conditionally-immortalized dorsal root ganglion precursor cell into a mammal, comprising administering to a mammal a cell produced according to the method of claim 6.

55. (Amended) A method for transplanting a conditionally-immortalized dorsal root ganglion precursor cell into a mammal, comprising administering to a mammal a cell according to claim 12.

Please add the following new claims:

70. (New) A method for transplanting a dorsal root ganglion cell into a mammal, comprising administering to a mammal a cell produced according to the method of claim 47.

71. (New) A method of treating a patient, comprising administering to a patient a cell produced according to the method of claim 47.

72. (New) A method according to claim 71 wherein the patient is afflicted with chronic pain and/or a pathological condition characterized by neurodegeneration.

73. (New) A method according to claim 72 wherein the pathological condition is a neuropathy.

74. (New) A method for screening for an agent that modulates the activity of a protein produced by a dorsal root ganglion cell, comprising:

(a) contacting a cell produced according t the method of claim 47 with a candidate agent; and

(b) subsequently measuring the ability of the candidate agent to modulate the activity of a protein produced by the cell.

75. (New) A method for detecting the presence or absence of a protein in a sample, comprising:

(a) contacting a sample with a cell produced according to the method of claim 47; and

(b) subsequently detecting a response in the cell, and therefrom detecting the presence of a protein in the sample.

76. (New) A method of identifying a human dorsal root ganglion gene or protein, comprising detecting the presence of a gene or protein within a culture of cells produced according to the method of claim 47.

77. (New) A method for screening for an agent that affects dorsal root ganglion cell death, comprising:

(a) contacting a cell produced according to the method of claim 47 with a candidate agent under conditions that, in the absence of the candidate agent, results in death of the cell; and

(b) subsequently measuring the ability of the candidate agent to affect death of the cell, and therefrom identifying an agent that affects dorsal root ganglion cell death.

78. (New) A method for screening for a protein that regulates dorsal root ganglion cell death, comprising:

(a) altering the level of expression of a protein within a cell produced according to the method of claim 47; and

(b) subsequently measuring the effect of the alteration on the death of the cell, and therefrom identifying a protein that regulates dorsal root ganglion cell death.

REMARKS

Claims 6-16 and 47-69 are pending in the current application. Claims 6-9, 47 and 48 have been allowed. Reconsideration of the present application in view of the following remarks is respectfully requested. Upon entry of these amendments, claims 6-16 and 47-78 will be pending. Support in the specification for amended claims 10, 12, 15, 16, and 53-55 and new claims 70-78 may be found in the specification as shown in the following table: